Customer service excellence in the self-service public library

State Library of Victoria: Shared Leadership Program, 2009-10

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**Introduction**

Public libraries are continuously evolving both in response to community expectations and in order to ensure their own future sustainability. They are rapidly developing as community hubs and providing a greater range of services, while still dealing with community expectations to provide traditional core services with limited resources. Developments have been assisted by the introduction of self-service options which enable customers to access information independent of library staff. In this changing environment it is important to re-examine how customer service excellence is achieved and measured.

This report was developed as part of the State Library’s 2009-2010 Shared Leadership Program. It identifies qualitative aspects that can be used to measure customer service and refers to two international case studies and one Australian case study to illustrate its findings. An overview of a third international library (SengKang Library in Singapore) has been included as an example of a 100% self-service library and acts as a useful point of comparison in this report.

The report does not aim to provide an in-depth analysis of self-service technologies, but rather to measure the impact that these options have on customer service in the public library environment. The case study libraries were chosen because they were all early adopters of self-service options, thus allowing us to evaluate the long term impacts of self-service in relation to customer service delivery. In selecting our international case studies we endeavoured to find libraries that operated in a similar cultural setting to Australia to keep our findings relevant to Australian public libraries. Information presented on the three case study libraries is sourced from the libraries themselves.

Self-service is an integral part of the evolving landscape of public libraries as it both drives and enables further change. This report aims to show that library services are not degraded by reducing the amount of staff intervention required, but rather, that libraries are empowering customers to access the library in the way that suits them best and freeing up staff to perform value added tasks.

The self-service environment is about more than just technology and there are a range of little or no cost options available to libraries which can achieve the real aim of self-service - namely to free up staff from manual labour, to increase the diversity and frequency of programs delivered and to provide greater opportunities for community development and engagement. Examples of self-service options are outlined in Appendix F but some of the options currently offered widely include: user friendly OPACs; self collection of reservations; self renewal of loans; self placement of reservations and requests; and self check-out.

This report does not assume that 100% self-service is either desirable or achievable in Australia. Studies at Brisbane City Library indicate that
Australian social and political expectations are at odds with a complete self-service model. At Brisbane City Library staff continue to serve patrons who are unable or unwilling to utilise self-service options. Similarly, Seattle Public Library (US) and Sutton Library (UK) have both adopted a hybrid model of service with both self-service and staff service options available to patrons. By contrast, the SengKang Library in Singapore is completely self-service and the model of customer service they offer differs in many ways.

**Benefits**

In transferring processes from staff to customers in a self-service library environment a number of benefits can be identified (Holt, 2002):

- staff experience health benefits through a decrease in manual work and a reduced risk of repetitive motion syndrome injuries;
- customers benefit from more value added services;
- library management benefits from more efficient processes.

These benefits were supported in research conducted by Mackenzie and Van Vlimmeren at Brisbane City Library and at Gemeentebibliotheek Utrecht (The Netherlands) in 2004.

Other benefits identified in this report include:

- greater privacy for patrons regarding their loans
- less waiting in queues
- a reduction in occupational health and safety risks arising from manual handling
- libraries able to keep up with increases in customer demand
- patrons are able to access self-services such as reservations and interlibrary loans (ILL)
- more sophisticated reference services
- increased accessibility due to longer opening hours
- improved personal and professional development options for staff
- opportunity for savings resulting from the removal of manual tasks to be reinvested into value-added library services.
Qualitative attributes of customer service excellence

In evaluating ‘excellence’ of service provision it is necessary to refer to qualitative attributes rather than a definitive assessment criteria. Simply suggesting that a library must provide literacy programs to meet a rigidly defined definition of ‘excellence’ ignores the local community’s particular needs. Thus the approach taken in this report leaves room for library services to tailor their programs to meet local needs.

There is an enormous amount of research into customer service and which attribute is deemed most important varies according to the individual author. This report stresses the importance of measuring qualitative attributes of service excellence so that libraries can give their customers what they want in the way they want it.

To this end the following attributes need to be considered when determining if a library is providing excellent customer service:

1. Reliability
2. Communication
3. Competence
4. Responsiveness
5. Understanding your customer
6. Accessibility
7. Staffing.

These attributes support the “Being the best we can” continuous improvement project run by the State Library of Victoria, which aims to evaluate and re-evaluate a library’s original objectives of the services against the outcomes.
**MAC Vision**

The MAC Vision has a range of missions and goals to develop Victoria's public library services. Under this vision funding is provided for broad-based services, many of which incorporate self-service components such as Library Link Victoria (LLV), WiFi and public PC management. Other funding is provided to enable libraries to redefine their spaces (“Libraries Building Communities”) so they can take advantage of the opportunities that self-service delivers to provide more programs or better reference and information services. This vision is to be tailored to meet individual library strategies, so that new services delivered meet the needs of local communities.

The critical elements to the MAC Vision are:

- To create a borderless library
- To provide and deliver services via a high-speed communications network
- To be a lifelong, authoritative and trusted information broker
- To provide places for innovative and inclusive communities to be formed
- To enable resource and information sharing

The qualitative attributes identified in this report are relevant to the delivery of the MAC elements and there is a certain amount of interdependence between them.
Case Studies – An Overview

In order to build a detailed understanding of the way these attributes of customer service excellence relate to the self-service library environment, this report has examined three different libraries operating with self-service options. Detailed case studies are attached as appendices, so only a brief overview is provided here. Also included in the report is reference to SengKang Library, Singapore, which although not a complete case study, is presented as an overview in Appendix D.

The Seattle Public Library
Washington, United States of America
(See Appendix A)

<table>
<thead>
<tr>
<th>Total members</th>
<th>469,826</th>
</tr>
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<tbody>
<tr>
<td>Population total</td>
<td>602,000</td>
</tr>
<tr>
<td>Staff total (EFT)</td>
<td>564</td>
</tr>
<tr>
<td>Loans per year</td>
<td>11 million</td>
</tr>
<tr>
<td>Number of branches</td>
<td>27 + home library</td>
</tr>
<tr>
<td>Visits per year</td>
<td>7.5 million</td>
</tr>
<tr>
<td>Collection size</td>
<td>2.4 million</td>
</tr>
</tbody>
</table>

The Seattle Public Library (SPL) started to introduce self-service options in 1992 when they implemented their online catalogue with the ability to place reservations. However, it was in 2001 that they introduced self-service checkout and it was following the implementation of this that many further self-service options were introduced utilising a trial and phased roll-out method of implementation.
**Sutton Library**  
*London, United Kingdom*  
(See Appendix B)

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<tbody>
<tr>
<td><strong>Total members</strong></td>
<td>46,000</td>
</tr>
<tr>
<td><strong>Population total</strong></td>
<td>185,594</td>
</tr>
<tr>
<td><strong>Loans per year</strong></td>
<td>1.1 million</td>
</tr>
<tr>
<td><strong>Visits per year</strong></td>
<td>Not supplied</td>
</tr>
<tr>
<td><strong>Staff total (EFT)</strong></td>
<td>84</td>
</tr>
<tr>
<td><strong>Number of branches</strong></td>
<td>9 + home library</td>
</tr>
<tr>
<td><strong>Collection size</strong></td>
<td>366,000</td>
</tr>
</tbody>
</table>

Sutton Library initially undertook the implementation of self-service technologies in the early 1990’s with the aim of improving face-to-face time with customers. However over the years, Sutton Library has reduced staff levels as a cost cutting measure, with the last two libraries to adopt self-service clearly stating that their aim was to ‘invest to save’ - that is ‘invest’ in technologies in order to ‘save’ on staff costs.
Self-service was introduced to Brisbane City Council Library Service (BCCLS) as a planned project commencing in 2002/2003 with the aim of freeing up both staff and funding to create higher level library services and products. BCCLS considered staff their most valuable resource and wanted to utilise them more in value added interactions.

SengKang Community Library
Singapore
(See Appendix D)

Opened in 2002 by the Singapore National Library Board, SengKang Community Library was the original 100% self-service library, employing only one security staff member for the entire library.
Findings to support qualitative attributes

There are an enormous number of reports, books and guidelines about what constitutes excellent customer service. This information has been refined into the seven customer service attributes identified above (Arden & Edwards, 2009). These attributes have been used to identify where self-service options are supporting or detracting from customer service excellence in the three public library case studies provided.

Reliability

If customers have a poor first experience with self-service options they will not use these technologies on their next visit. Reliability is therefore a key attribute of excellent customer service. A consistent and reliable service will increase a customers’ satisfaction with the library. It follows, therefore, that if the services offered are not high quality (speed of downloads, etc) then customers will not return. Reliability builds trust.

Reliability can be demonstrated by:

- Functionality and speed of technology;
- Consistency of service from staff;
- Streamlining and maintaining procedures and
- Maintaining standards of service delivery.

Maintaining a reliable service was a clear priority in the Brisbane City Library’s adoption of self-service technologies. While they introduced self-service to several library processes such as self checkout, self pickup of holds, and self PC bookings, they made a deliberate decision for library staff to continue to manage other processes in order to ensure a consistent and reliable service.

Self-returns was trialled at BCCLS but withdrawn as it proved too unreliable. BCCLS also decided against allowing self-booking of meeting rooms and learning lounges as the steps involved in this process were judged too complicated to be satisfactorily delivered as a self-service option.

At Sutton Public Library, where many self-service options have been embraced, audiovisual items are still checked out by library staff to deter theft. Conversely, Seattle Public Library does allow self-checkout of AV but has reported a suspected increase in theft as a result. In other areas of service delivery such as checking out materials, Seattle have made clear efforts to maintain standards of service by rostering staff at their combo
workstations to cater for customers who do not wish to use self-service technologies or who require assistance with these technologies.

Brisbane City, Sutton and Seattle Libraries might best be described as hybrid libraries offering a mixture of self and staff service options. In the above examples staff service is made available where it is deemed to offer the most consistent and reliable service. This can be compared with the SengKang Library in Singapore which has implemented a complete self-service model.

While the implementation of self-service at SengKang has improved service delivery in areas such as self-checkout, where excessive queuing times were markedly reduced, there is evidence that the quality and consistency of service has been compromised in other areas. With no library staff onsite, security has been identified as a significant issue with library items disappearing at a higher rate; assisting patrons to locate items is also a commonly reported issue, despite numbered shelves and a simple design layout; it is not possible to collect reservations from SengKang Library as there is no customer service centre there to provide this service; and the most common complaint at this library is in relation to noise levels as with no library staff onsite to monitor and manage inappropriate noise, patrons have reported a less satisfying library experience. The SengKang experience shows that using self-service to completely replace library staff has reduced the reliability and standard of service delivery in key areas.
Communication

When implementing change, staff communication skills are critical. Staff must be able to confidently convey messages to customers and subsequently train customers in the use and successful adoption of self-services.

Communication can be demonstrated by:

β Accurate and timely information;
β Tailoring messages to various stakeholders (library staff, public, funding bodies);
β Effective training for staff.

Communication was identified as an essential element in the successful transition from traditional service models to self-service delivery at Seattle, Sutton and Brisbane City Libraries. The Seattle Public Library developed a planned communications strategy for both library staff and the community. Multifunctional work teams were created to handle major impacts and to address staff and public information and training needs.

At the Sutton Public Library posters and leaflets with information about the changes were disseminated throughout the library buildings. A series of short training sessions was rolled out to guide library staff in being proactive about changes to the service and in the initial transition period library staff remained on-hand to assist patrons with all new processes.

At Brisbane City Library a change management team was created to identify potential barriers to the adoption of service changes so that communications with stakeholders would be informative and relevant. Brisbane City also developed a Frequently Asked Questions reference sheet for library staff to ensure accurate information was always readily at hand.
**Competence**

Competence in the delivery of core library services includes provision for reference and information services, suitable product range and relevant events and programs (see Appendix E for examples). Providing great products (books, CDs, films, magazines, digital downloads, databases) is a core attractor for customers.

Competence can be shown by:

- Efficient, accurate and proficient reference services;
- Value-added services tailored to the community;
- Good range and great quality of products available.

At Seattle Public Library self-service, particularly the facility to renew and reserve online, was described as increasing the ease and opportunity of patron use. This was demonstrated in the high take-up rate of self-service options (91% of total reservations placed in 2008 were placed by patrons using the self-service option). Since the introduction of self-service it has also been noted at SPL that library staff now spend more time with patrons assisting with information and reference enquiries. This time was previously taken up by repetitive manual tasks that offered a basic, as opposed to a value-added, service.

Sutton Library reported that returned materials take a far shorter time to be re-shelved now that library staff are no longer required behind the circulation desk.

At Brisbane City Library value-added library services tailored to the community were a direct result of the implementation of self-service where the number of staff hours saved by removing manual tasks was calculated and reallocated to library programs and events in what was branded their 'payback' system.

Both Seattle and Brisbane City Libraries introduced a phased approach to self-service implementation so that unforeseen problems could be quickly addressed and the impact on library staff and patrons minimised.
Responsiveness

To remain relevant, libraries must be able to respond to the changing needs of their communities. Moving resources from manual processes to value-added programs is one way to respond to community needs. Self-services enable libraries to respond to existing community demands that are otherwise unable to be met due to lack of available resources.

Responsiveness can be shown by:

- Utilising relevant advances in technology;
- Changing services to reflect community demands;
- Services being timely / available when the customer needs it - 'giving people what they want, when they want it';
- Making services easy for customers by helping to resolve problems and difficulties.

There is evidence of increased responsiveness as a result of self-service technologies with all four library services (including SengKang) reporting reduced or non-existent queues for checkout of materials since the implementation of self-checkouts. With less waiting time customers are able to essentially get what they want when they want it. At Seattle customers have provided positive feedback that it is quicker to pick up and checkout their own reservations.

Brisbane City and Sutton Libraries both introduced a roving librarian staffing model designed to assist patrons wherever they are in the library at the point at which they require assistance.

Brisbane City Library is currently trialling customer profiling based on borrowing history for patrons with suggested reads as a personalised service. In doing so they are utilising advances in technology to provide a service that is both dynamic and value-added. Brisbane City Library also has a strategic plan to update self-service machines every five years, which shows an ongoing commitment to using advances in technology to provide a standard of service that is in line with customer expectations.

At Seattle Public Library the enthusiastic adoption of self-service options indicated a real need existed in the community for access to the library service at times and locations convenient to the library patron. For instance, in 2008 self-service renewals accounted for over 86% of all renewals made. In order to cater for different customer preferences Seattle purchased combo checkout stations in addition to the completely self-service workstations so customers still had the option to have staff assistance if required. The combo workstations were more expensive than the complete self-service option but providing customers with options was prioritised over cost.
In introducing self-service options, SPL emphasised the importance of retraining library staff in their perception of what constitutes good customer service. Library staff were encouraged to refrain from intercepting or taking over from customers attempting to use a self-service option unless it was obvious that the customer was struggling to understand instructions.

This was initially hard for library staff to do as their previous training in good customer service required that they complete the task for customers wherever they could. While this thinking fits a traditional model of good customer service, it does not fit the logic of good customer self-service, which assumes the customer is intelligent enough to understand clear instructions and capable of completing the tasks in their own time and on their own terms. This is a significant point in highlighting the fact that responsiveness to customers can require challenging staff assumptions and changing our practices.
Understanding your customer

This attribute covers identifying what customers actually want from their libraries. In terms of customer demands for efficiency, technology and space this is an ongoing process highlighted in the “Being the best we can be” program. ‘Understanding’ covers the whole spectrum of community served including age, ethnicity and socio-economic backgrounds.

Understanding of customers is demonstrated by:

- Community consultation to determine real community needs as opposed to perceptions of their needs;
- ‘Giving people what they want, when they want it’ - ensure products and services are available when the customer wants them;
- Making it easy for customers with simple, easily understood services;
- Anticipating and planning for future needs in terms of technology/space/programs.

In establishing real community needs as opposed to perceptions of needs, Brisbane City Library stands out as a service that has prioritised community consultation both prior to and after the introduction of change. They conducted a business case prior to introducing self-service options and an annual customer satisfaction survey post-implementation. While previously staff undertook manual tasks, after the implementation of self-service options staff largely became engaged in a variety of new programs and extensions of existing programs for the community.

This is in contrast to the SengKang Library which made the move to self-service to save on costs and to provide a quicker service. While the SengKang Library has responded to a demand for efficiency, the staff-less model means that it is not able to offer very few programs or value-added services for its customers.
Accessibility

The traditional definition of accessibility covers locations, opening hours and physical access to buildings, collections and services. However this attribute also includes providing dynamic spaces that enable connections between people that can be formal “event” spaces, or “chat” spaces.

Accessibility can be shown by:

- Being flexible; giving people opportunities to access service in the way they want to and where they want to;
- Providing outreach services;
- Being inclusive for those with disabilities;
- Identifying and addressing barriers to service delivery.

Both Brisbane City and Sutton Libraries were able to extend library opening hours as a result of cost-savings from utilising self-service technologies. In fact Sutton almost doubled the opening hours at its Phoenix branch. It should be noted here that Sutton Library made the decision to reduce staff numbers post-self-service implementation, so for a significant percentage of the extended opening hours only a limited service is actually available. In contrast Brisbane City did not make any job cuts and have dedicated more staff to the library floor as part of their roving staff model.

At Seattle Public Library the high uptake of services provided through its virtual library demonstrates that an increased accessibility to services has been achieved by improving the ease and opportunity of use.
Staffing

Library staff need to be better utilised. A self-service environment frees up staff to focus on community development opportunities in their local areas. This will provide further training opportunities to develop their skills and personal qualities and provide them with meaningful work.

Staffing can be demonstrated by:

- Ensuring good user experience when interacting with staff
- Giving the customer more than they expect
- Being approachable and pleasant with the customer;
- Having staff who love what they do;
- Providing staff with the right training;
- Being good listeners and showing empathy;
- Being proficient and professional;

At Sutton Library staffing structure and position descriptions did not change. However, subsequent to introducing self-service there has been a reduction in staff of about 11.5% since 2000. The staff-less SengKang Library also cited cost-cutting as a motivation for their move to self-service and it is clear in this report that aside from improving efficiency of service, they provided no further demonstrable examples of customer service excellence as defined by these qualitative attributes. In contrast SPL retained their staff to meet increased usage and Brisbane City shifted staff resources to value-added services. In doing so BCCLS has been able to convincingly demonstrate a high standard of customer service against all the qualitative attributes outlined in this report.

BCCLS developed a payback system prior to implementing self-service technologies, where the staff time freed from manual tasks was calculated and reallocated to value-added services such as events and programs. While staffing numbers and structure did not change as a result of self-service, the day-to-day work that staff were engaged in did change. BCCLS identified staff as their most valuable resource and saw shifting staff from manual tasks to projects that encouraged them to develop new skills as providing attractive professional development opportunities. Position descriptions were changed at Brisbane City to include an events and programs focus and a staff development program was run to strengthen skills in event management. Further, technicians now have an information technology focus in their position descriptions.
At SPL self-service allowed the library to keep pace with increased demand as a result of the extensive rebuilding and renovation of their libraries with only a 17% increase in staff between 2000 and 2009. One new position of AMHS Operator was created to manage the automated sorting system. Position descriptions did not change but the tasks staff carried out did alter as a result of far greater usage and the high uptake of self-service options. For instance, self-service shifted the bulk of reservation placements away from staff, but the far greater number of reservations placed meant that more staff time was required to locate and process reservations.

Both Seattle and Brisbane City Libraries reported a reduction in repetitive motion syndrome injuries which for both libraries was a stated reason for making the initial move to self-service.
Conclusions

The qualitative attributes identified above are necessary considerations when measuring customer service excellence in our public libraries. Self-service options are relatively new for most library customers but they are becoming a more prominent feature in the changing landscape of our libraries. To ensure customer service excellence is delivered in this new environment, key points to note are:

- Have clear outcomes and objectives set out in a business plan
- Consult your community both prior to and after the implementation of change
- Have a clear communication strategy for staff, the community and all relevant stakeholders
- Ensure that staff are on board to deliver a consistent positive message
- Offer a mixture of staff or self-service options to customers
- Take a phased approach to new technologies to allow technical glitches to be ironed out beforehand
- Consider how service areas might be improved through value-added programs

This report sets out seven attributes of customer service excellence and contends that a library needs to have examples under each attribute in order to demonstrate that they are delivering a high level and balanced service. Our findings indicate that self-service options have increased the efficiency and timeliness of service delivery and that the ease and convenience of use has been significantly elevated at our case study libraries. Self-service options have been directly linked to increased accessibility as demonstrated by extended opening hours at two of the case study libraries and high usage of the virtual library at the other. These options have enabled libraries to plan for and keep up with increased usage as in the case of Seattle Public Library, and to offer more value-added services as demonstrated by Brisbane City Library.

It is beyond the scope of this report to establish detailed performance measures under each of the customer service attributes identified, but we have listed below some recommendations for further research into this topic and detailed performance measures are one of our recommendations.
Recommendations for further research

The large scope and limited timeframe given to this project meant that a number of key areas were unable to be investigated. It is our recommendation that work could be undertaken in these areas, possibly by future Shared Leadership teams. The areas identified include:

- Performance measures developed under each attribute
- Toolkit for successful implementation of self-service (including marketing strategy, internal and external communication plans, budget, implementation checklists, evaluation strategy)
- The significance of library layout in the provision of self-service options
- Identify and develop staff professional development and training opportunities
- Re-evaluation of library courses
- Identify new or developing technologies for improving self-service
Appendix A: Seattle Public Library case study
Seattle Public Library, Washington, United States of America

Overview of library service
Seattle's 27 public libraries and home library service deliver to a population of 602,000. With a collection size of 2.4 million and 564 EFT staff, the 27 branches see 7.5 million visitors per year with over 11 million loans. The Seattle Public Library's mission statement is “to become the best public library in the world by being so tuned in to the people we serve and so supportive of each other's efforts that we are able to provide highly responsive service”.

Between 2000 and 2009 Seattle saw tremendous growth in use, due in large part to its Libraries for All (LFA) building program that involved the replacement and renovation of all library branches, as well as a new Central Library and four new branch locations. The last of the LFA projects were completed in 2008, so 2009 was the first year since 1999 that all branches have been open. During that period, system-wide circulation more than doubled. All of the automated and self-service operations implemented over the years allowed SPL to keep pace with these increased service demands with only a 17% increase in staff between 2000 and 2009 (454 FTE 2000 compared to 533 FTE in 2009).

Why move to self-service?
There were two main reasons behind the decision to introduce self-service at SPL. Automated and self-service initiatives were implemented to address an increasing demand on staff workload and in anticipation of further increases as a result of the “Libraries for All” construction and renovation project. Secondly, the introduction of the RFID self-checkout and sorting systems was aimed at reducing staff exposure to potential repetitive stress injuries. However another significant factor in the case of Seattle was the major building projects it was undergoing at the time. There was a desire to include state-of-the-art and "cutting edge" technologies, in part to underscore the excitement and vitality of a new building, but also because major building projects provided the best opportunity to secure funding and to incorporate the necessary infrastructure and space for the equipment. This was a major reason for implementing an RFID circulation and sorting systems when they did, but the other reasons stated above - staff health and the need to meet anticipated higher usage demands without large staff increases – were the factors that led them to select that particular project over others that were also considered.

Implementation
Implementation of self-service options began in 1992 with the introduction of an online catalogue with the ability to place reservations. Developments continued over the following years - automated phone messages and online renewals (1996), self-checkout machines (2001), automated PC bookings and email notification (2002), self pick-up of reservations (2003), system wide RFID self-checkout (2004), online borrower registration (2005), online reference services
(2006), events calendar (2007), canned searches (2009) and currently implementing online payment of fines.

Self-service projects included a planned communication plan and publicity for the public. Multifunctional work teams were created to anticipate and handle major impacts, and address staff and public information and training needs.

For major service changes (self-checkout, PC bookings, reservation pickups) a trial and phased roll-out method of implementation was used. This involved running trial implementations at 1-3 pilot sites, then phasing the rollout throughout the service. This approach provided time and experience to identify any issues and to modify configurations and training accordingly. It also helped produce positive buy-in at the pilot sites and generate anticipation at the sites yet to implement.

SPL anticipated greater concern about confidentiality and health implementations, but these concerns proved to be minimal. The main issue expressed by the public was that the technology would replace the staff.

SPL continues to provide staff-assisted services for those who prefer it. All library locations have at least one staff-only workstation (and queue line) for checkout, checkin and more involved customer transactions (eg fine payment, card registration, etc). The combo workstations also permit staff to help users who need assistance, or who need to resolve an issue with their account without requiring them to move to the full staff-service queue.

**Staff**

Self-service had a significant impact on the tasks that library staff carried out. For instance, while self-service shifted the bulk of reservation placements away from staff, more staff time was required to locate and process the greater number of reservations placed. There was also an impact on staff in acquisitions and collections as additional materials needed to be ordered to service the increased demand.

The RFID and AMHS (automated sorting) systems allowed SPL to manage increased usage with the same amount of staff, or to redeploy staff more effectively. Seattle deployed circulation desk staff at their Central Library to staff the sorter. At other branches, the efficiencies of RFID self-service and the centralised automated sorting system have allowed branch staff to spend more time helping people with questions instead of being occupied by the manual labour of issuing, returning and sorting.

There were two new positions created as a result of automation technologies and increased usage - a sorting system AMHS Operator and a part-time driver position to service the increase in reservations.

Generally, staff received changes positively. Staff reception depended on the quality of their initial experience with the service when it commenced operation, and their initial comfort of use, which usually corresponds to the effectiveness of
the training they received. SPL learnt that if there are software or hardware glitches, then staff (and public) reception can turn negative.

**Outcomes**

- Reduction in repetitive motion syndrome injuries for staff
- Significant monetary savings in non-personnel areas. During the first year after its implementation in 1996, the TeleCirc automated notification system saved the library over $100,000 in postage costs. It continued to do so for many years until email became the dominate form of notification.
- Increased customer satisfaction with reduction in queue times, and the ease, speed and confidentiality of reservation pick-ups and self-checkout
- Cost avoidance of not having to hire more staff to service an increased demand
- Higher AV loss rate (now stored on open shelves)
- More cumbersome to identify and return personal items that people have returned in book drops (previously many of these items would have been caught at hand when manually returned to the circulation desk).

**Lessons Learnt**

If SPL had waited before implementing RFID they might have benefited from the experience of others. However, their relationship with the vendor as an early adopter provided them with the opportunity to have significant and positive influence in the development of the hardware and software so that their specific needs would be met. A negative of implementing RFID in its early days is that SPL have had to upgrade hardware and software to meet changing from a proprietary RFID tag to one meeting ISO standards.

In retrospect, Seattle would have preferred to implement a higher percentage of stand-alone workstations over the combination workstations. The combo workstations seemed a good, customer oriented concept at the time, but the stand-alone workstations are actually preferred by users once they feel comfortable with the process, and also cost less.

It can be difficult to overcome initial negative responses even after issues have been resolved, so it is important to test and trial new services for robustness and ease of use and to train staff so they feel comfortable assisting the public.

There is a strong temptation for staff to step-in when patrons approach and immediately offer verbal instruction, or to simply take the materials and operate the system for the customer. While this fits the previous paradigm of good customer service by "serving" the customer, it actually does not fit the paradigm of good customer self-service, which is to empower the customer to do the transaction on their terms. The good customer self-service paradigm acknowledges that most customers are capable of reading and following
instructions. It does, however, require self-service options to be easy and intuitive to use and for instructions to be brief and clear (ideally using visual instructions/guides to illustrate each step).

The major lessons learned through the implementation of self-service technologies was to ensure all self-service points have clear instructions, that there is clear and continuing communication with staff and the public, and that all technical glitches are ironed out beforehand.
Appendix B: Sutton Library Service case study
Sutton Library Service, London, United Kingdom

Overview of library service
Sutton library service is provided through a network of nine libraries (plus a mobile service) located in an outer London borough serving a culturally and socio-economically diverse population of 185,594. The total operating hours across all branches is 1854 hours per month, which includes 132 hours of unstaffed opening hours. Twenty-five percent of the resident population is under the age 19 years and over 14% are over 65 years.

Why move to self-service?
The Sutton council was attempting to make savings wherever possible. In the current economic climate it is likely that Sutton will have to find a further 15-20% in cost cuts. This has been a major reason for implementing self-service models.

In 2004 a number of other factors led to the introduction of self-service technologies available in the library service: Sutton’s Central Library was due for refurbishment as part of a refurbishment program, the library management system was due for replacement, and the service sought to remain at the forefront of library innovations and reduce queues. Further, there was the matter of increased opening hours: the library at Phoenix would now be increasing its opening hours from 37 to 83 hours per week – with no increase in staff budget. Thus technology that offers a high self-service component was highly desirable.

The target for self-service was set at 100%, and self-service was always regarded as being mandatory. Sutton is currently achieving regular overall figures of between 85% and 95%, and sometimes higher than that.

Implementation
Self-service options and technologies that Sutton have implemented include: online catalogues (early 1990s); automated telephone renewal system and overdue notices (1995); self-service circulation units, automated email pre-overdue and standard overdue notices, reservation notices and PC bookings (2000); implementation of RFID, and a SmartCheck returns unit (2005-2009).

The upgrade in circulation operations was a major adjustment that required a change in mindset for both staff and the public. Service and operational changes were communicated to users by placing posters around the building and by providing informative and instructive leaflets. For the initial transition, library staff were on-hand to assist patrons.
Staff were kept informed of the changes that were taking place. A series of short training sessions were provided to guide staff in being proactive rather than reactive to customers.

The community response was varied. Some users did not like the fact that staff would not be checking out and checking in their items. Some thought that they would be unable to understand or use the new technology. Others liked the idea – the fact that there would be fewer queues and greater privacy regarding the materials borrowed was received positively.

**Staff**

The original business case for the implementation of self-service units at Sutton Library held that staff would be released from circulation desks in order to provide a better service to library users in areas such as reader development and reference and information services. However, staffing levels at Sutton Library have been reduced by about 11.5% since 2000 (from about 92 down to 84 full time equivalent staff). In fact, the last two branches to implement self-service facilities were put into operation on the basis of what the Library terms "invest to save," - that is, "invest" in equipment, in order to "save" on staff costs.

While there has been a decrease in staffing numbers, the core structure and job descriptions have not changed (although the tasks performed by some staff did change). As staff are no longer behind a circulation desk, the time taken for returned materials to be re-shelved has been reduced. However, staffing levels remain at a premium given budgetary constraints and impending cuts.

**Outcomes**

- Staffing numbers have decreased
- Expansion of operation hours, with no extra staff
- Changes in floor layout (spaces named ‘Page One’ contain new books and self checkout machines for speedy selection)
- A complementary technology to the self-check units, a Digital Library Assistant (that also utilises RFID) allows staff to keep the collection up to date by shelf-checking and locating items that have not been loaned for some time.
- Only the loan of books is permitted through self-service; CDs and DVDs must be checked out by members of staff (the loan of these items are chargeable for security reasons).
- There is no real evidence of change but there is the belief that those users which require assistance are getting a better response. Some figures indicate that user satisfaction had increased from 90% to 96%.
- With multiple self-service units on hand queues have been cut, as has the time taken to issue products
- Staff are now able to provide a more welcoming atmosphere and deliver assistance people desire. However, the longevity of this is unknown given the impending budget cuts that will be required over the next 2-3 years.
In 2005 at the newly refurbished central library new memberships increased by 47.5%, while the Phoenix Centre saw an impressive 637.5% increase in new users in the same period (Arnot, 2005).

**Lessons Learnt**
There is some hesitation in regard to the practicality of the SmartCheck returns unit given the lack of space to include a sorter with it – it still requires a large degree of manual handling.

Limited library services without staff are possible in co-located buildings - that is, shared spaces with other council departments. The Phoenix Library is able to operate extended hours with just one guard on duty due to its location.

When Sutton initially installed self-check options the uptake was low and they felt it was difficult to encourage use of self-service when there is still the option to be served by staff. When self-service is the only option provided uptake increases by necessity.
Appendix C: Brisbane City Council Library Service case study
Brisbane City Council Library Service, Queensland, Australia

Overview of library service
Brisbane City Council Library Service (BCCLS) serves a population of 1.04 million people, operating 32 branches plus a mobile library service. Combined, they receive over 6.1 million visitors through their doors annually, and almost 10 million loans - making it one of Australia’s busiest public library services.

44% of the resident Brisbane population are members of the library service, while 75% of the community use the services provided. Events are well attended and the service employs 284.1 EFT. Opening hours vary across the 32 branches, with most branches opening 5-6 days per week (Saturday mornings only) and a few opening on Sunday.

Why the move to self-service?
Self-service was introduced to BCCLS with the intent of freeing up both staff and funding to create higher level library services and products, and to increase the community hub focus and learning centres provided through the libraries. BCCLS considered staff their most valuable resource and wanted to utilise them more in value-added interactions.

Extensive analysis was undertaken to identify exactly what staff did and the activities they performed, with results showing 70% of face-to-face customer time was spent on checkin and checkout. This left only 30% of face-to-face interaction between staff and patron where the customer was offered a value-added service.

Implementation
A business case was proposed and accepted which outlined a staged introduction of technology to enable self-service within BCC libraries, with RFID being the major technology upgrade. A change management team developed plans for managing both staff and customers during the shift to self-service in 2002, which included potential barriers, a list of tasks to be performed, tips on big picture, teamwork prior to and during implementation, and information to provide to customers. A checklist of Frequently Asked Questions was designed for staff reference when questioned by patrons which included suggested responses to customer concerns and queries.

While some BCCLS branches have had self-checkout for 12 years, from 2003/04 the service gradually began installing self-checkout machines and RFID across all branches. This initial phase was completed over a few years, and BCCLS are now in the maintenance/replacement phase, with machines lasting around 5 years.
due to technology upgrades available. Currently, about 73% of loans are performed by self check machines.

In the same year (2003/04), customer pick up of reservations was gradually introduced. While self-service reservations are still not 100% (it is not available for some high demand audiovisual items or interlibrary loans), it is available for most items. The processes at each branch are slightly varied to reflect local conditions and security requirements.

Placing reservations, renewals, and personal account management (such as updating address details) are all self-service and available online. PC bookings have been self-service since 2002, and X-box and study room bookings are made in paper form at the branch by patrons. BCCLS are currently trialling patron profiling and personalisation of services.

The Brisbane City Council business plan identified at least 25 hours per week of staff time would be freed up once the implementation of RFID was complete. A ‘payback’ system was developed in which branches had to allocate these additional hours to an existing program, or develop a new one. One branch was able to do five hours of outreach to local schools, run an evening story time, provide three extra sessions of internet training a week, run a book chat club, and do without an additional staff member on Saturdays. Another branch chose to use their payback to open an extra hour every day.

The entire process was staged, with different branches implementing self-service at different rates. Changes to design and layout of libraries are ongoing, with the removal of all large physical circulation desks occurring as funds for refurbishment become available.

While the intent is to make BCCLS as self-service orientated as possible, there are some things which are difficult to automate. Bookings for meeting rooms and learning lounges (computer labs) are still facilitated by staff due to the range of requirements of the booking group (eg kitchen, whiteboard and other demands). Self-checkin was trialled in one branch, however, there were issues with theft of items and staff lacked confidence that items were properly returned. This option was withdrawn.

Self-service options identified for consideration in the future include self payment of charges (possibly via a smart card system), and a book sorting machine. Automated robotics are still some way off but are under consideration, with space requirements a major obstacle and retro fitting an expensive option.

**Staff**

Service and operational changes were received by staff either with great enthusiasm or horror, however, no staff left because of the changes. Staffing structure and numbers have remained constant, however position descriptions have changed and now include an events/programs focus. Preference is given to candidates with a customer service background and to those with a keen interest in reading so they can engage effectively with customers. Library technicians now have a greater information technology focus in their position descriptions.
Rostering has changed to include a roving service. It is expected that staff will spend 80% of their time on the floor and 20% in the workroom (depending on the number of customers in the library. There are also rostered ‘Check out stars’ to help patrons borrow using self-service technology. When staff do interact with patrons directly, they are frequently more ‘difficult’ cases to deal with or longer and more detailed queries.

Team Leaders have stated aims in their performance plans to improve levels of customer self-service in their branches, and there is a staff development program to increase skills in programming and event management.

**Outcomes**

- More sophisticated reference and information service
- More accessible services and longer opening hours
- Improved professional development for library staff
- Reduction in workplace health and safety concerns such as repetitive strain
- A number of new programs and services (via the ‘payback’ system)

  Additional services include the following computer courses:
  - Introduction to computers
  - Introduction to eLibCat
  - Introduction to the internet
  - Community languages internet training
  - Discover email
  - Advanced internet searching
  - LearningFast: free computer tutorials you can use at home or work

Additional programs and events include:

- Author Talks
- Eco Fashion Seminars
- History of the harp
- Wizard of Oz
- How to make and use a creative journal
- History Talk: The History of your House

Service and operational changes were generally received well by the community. Customers are pleased with the speed of checkout and the ability to maintain privacy when borrowing.

Customer service has been impacted positively since the adoption of self-service options in the library, shown through BCCLS’s annual user survey measuring customer satisfaction, which has indicated that patrons are happy to do some things for themselves – as long as when they want assistance or need to talk to a staff member, someone is available quickly.
**Lessons Learnt**

The clear benefits of self-service have been an increase in programs and events, an increase in value-added face-to-face customer contact provided through roving staff, and an increase in opening hours at some branches.

The drawbacks have included difficulty in getting messages out to all customers with less face-to-face simple transaction time and the requirement of staff to be more skilled as they are primarily dealing with ‘difficult’ situations.

The BCCLS business case presented before self-service options were delivered (2002) suggested social and political expectations would not allow BCCLS to adopt a 100% self-service model. This is likely a similar situation across all Australian public libraries. (See Appendix D - SengKang Library overview on 100% self-service model for more information).

While a major lesson learnt in is relation to placement of self-checkout machines – they need to be very clearly marked and close to exits - BCCLS recognises that staff are the biggest driver to successfully implementing self-service. All staff need to positively promote self-service during the six months it takes to changeover to the new system.
Appendix D: SengKang Community Library Overview

SengKang Community Library, Republic of Singapore

Officially opened in December 2002 is the Singapore Public Library Board’s complete Do-It-Yourself Library – SengKang Community Library (SKCL). Following a national political strategy to become a ‘knowledge economy’ developed in the early 1990’s, the National Library Board implemented a 100% self-service library as both a cost cutting method, and as a way to reduce excessive queuing times (often 45 minutes to return an item, and another 45 minutes to loan).

In 1998 RFID was implemented at SengKang allowing self-checkout of items. Shortly afterwards fine payment was introduced via a national cash card. The last features to move to self-service were registration of new members (no personal identification required to activate membership, members enter their birth certificate number or National Identity Card Number as validation), and enquiries (remote 'Cybrarian service' which is via telephone and PC based co-browsing where patron uses kiosk at library and communicates with librarian offsite at another library).

Usage statistics are about the same for this library and any similar size library in Singapore, despite having no staff onsite (one concierge also doubles as a security guard and shelving is performed by the same volunteers who staff the onsite café).

While running costs are significantly lower with no staff to employ, there are notable downsides to the model. With the exception of a weekly storytime, there are no other events and programs run at this branch. Security is an issue, with items disappearing at a higher rate. Patrons, while happier with no longer having to queue, miss the face-to-face contact the library used to provide. Assisting patrons to locate a book on the shelves is a commonly reported issue, despite the numbered shelves and simple design layout of the branch. It is also not possible to collect reservations from SengKang Library, as there is no customer service centre to provide the service. The most common complaint is in relation to noise levels.

While the prototype is considered a success in Singapore, it does raise a number of questions when assessing the standard of customer service delivery in a 100% self-service library. There are considerable cultural differences between the Singaporean and Australian communities. A complete self-service model is unlikely to be well received by the Australian public, as indicated in the research outlined in the Brisbane City Council Business Plan (2002).
Appendix E: Value-added services

Value-added services can be considered anything that goes beyond the core services expected of a library service (such as collections, reference services, readers advisory, information literacy and outreach). There is literally no limit to the exciting scope of potential value-added services which might become relevant to libraries in the future, but they may include:

- Libraries providing a more vibrant online space
- Literacy programs for adults and children
- Programs designed to strengthen communities
- ESL courses
- Development of online services
- Adult lifelong learning programs
- Print-on-demand for books and newspapers
- Increase in digital library services
- Homework help / Your tutor
- Computer training courses – online and in person
- Community development opportunities:
  - Outreach
  - Events
  - Proactive customer contact programs
- Developing libraries as community hubs
Appendix F: Self-service technology options

With constant technological advances there are endless possibilities of self-service options available for implementation into a public library setting. Investigation of these possibilities is beyond the scope of this report; however below is an indication of options currently available.

- Self-checkout
- Self-checkin/ returns
- Online reservation placement
- Online interlibrary loan requests
- Online suggestion for purchase
- Self-service reservation pick-up
- Online renewals
- Automated booking systems:
  - Meeting room bookings
  - PC bookings
  - Online events bookings
  - Game bookings
- Printing/photocopying (using library card or smart card)
- Virtual reference services
- Self management of personal details (address updates, etc) online
- Online training tutorials
- Virtual tours
- Library vending machines at train stations, shopping centres etc
- Payments - online (BPay or credit card) or via library/ smart card
- Digitisation of materials: e-books, databases, downloadable books
- Online membership
- Individual patron profiling and notification
- Robotic manual handling options
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